MONTHLY WEATHER REVIEW.

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INTRODUCTION.

This REVIEW contains a general summary of the meteorological conditions which prevailed over the United States and Canada during June, 1885, based upon the reports from the regular and voluntary observers of the Signal Service and from co-operating state weather services.

Descriptions of the storms which occurred over the north Atlantic ocean during the month are also given, and their approximate paths shown on chart i.

The month has not been marked by any abnormal features.

The number of atmospheric depressions traced on chart i. and described under "Areas of low barometer," is seven, the average number for June during the last twelve years being 8.8.

The mean temperature was below the average over a greater part of the country; in the lake region and Rocky mountain districts the means were from 2° to 4° below the normal, the departures in other districts being less marked. Along the New Engtand coast, in the Gulf States, and a part of the Rio Grande valley the mean temperature was slightly above the normal.

The precipitation was above the average in the plateau districts, over the eastern slope of the Rocky mountains, in the extreme northwest, lower lake region, south Atlantic states, and Florida; it was below the average in New England, the middle Atlantic and Gulf states, and in the central valleys.

Except during the prevalence of the storm traced as number 3, which caused many disasters in the vicinity of Newfoundland, the weather over the north Atlantic has been generally moderate.

Large masses of ice have been observed in the north Atlantic during the month, the area of the ice-region being larger than in the same month of preceding years.

In the preparation of this REVIEW the following data, received up to July 20th, 1885, have been used, viz.: the regular tri-daily weather-charts, containing data of simultaneous observations taken at one hundred and twenty-nine Signal Service stations and sixteen Canadian stations, as telegraphed to this office; one hundred and seventy monthly journals and one hundred and sixty monthly means from the former, and sixteen monthly means from the latter; two hundred and eighty-six monthly registers from voluntary observers; reports from 1,307 special tornado observers; forty-six monthly registers from United States Army post surgeons; marine records; international simultaneous observations; marine reports through the co-operation of the "New York Herald Weather Service;" abstracts of ships' logs, furnished by the publishers of "The New York Maritime Register;" monthly weather reports from the New England Meteorological Society, and from the local weather services of Alabama, Illinois, Indiana, Iowa, Nebraska, and Ohio, and of the Central Pacific Railway Company; trustworthy newspaper extracts, and special reports.

ATMOSPHERIC PRESSURE.

[*Expressed in inches and hundredths.*]

The distribution of mean atmospheric pressure over the United States and Canada for the month of June, 1885, determined from the tri-daily telegraphic observations, is shown by the isobarometric lines on chart ii.

The mean pressure for the month is greatest over the region to the east of the Mississippi river south of the fortieth parallel, and on the north Pacific coast, where the mean pressure ranged from 30.0 to 30.05.

Two areas of barometric minima are shown on the chart, one over the Gulf of Saint Lawrence, indicated by the isobar for 29.8, and the other over the central and southern Rocky mountain districts, where the barometric means are below 29.8, a small area in southern Arizona being inclosed by the isobar for 29.75.

As compared with the mean pressure for the preceding month an increase is shown on the Pacific coast and to the eastward of the one-hundredth meridian, except in New England and the Maritime Provinces. The increase along the Pacific coast is about .05, while over the greater part of the country to the eastward of the meridian above named it varies from .05 to .10. In the Rocky mountain districts, New England, and the Maritime Provinces the mean pressure is lower than for May, the deficiency being greatest in the last-named district, where it varies from .10 to .13.

The departures from the normal pressure are given in the table of miscellaneous meteorological data, and are also exhibited on chart iv. by lines connecting stations of equal departures. On the north Pacific coast and over a part of the middle plateau, the mean pressure does not differ from the normal; in New England and the Maritime Provinces it is slightly below the normal, and in all other parts of the country it is above the normal, the departures being greatest over an area extending from the south Atlantic coast to the extreme northwest.

BAROMETRIC RANGES.

The monthly barometric ranges were greatest in the extreme northwest, Fort Buford and Bismarck, Dakota, reporting 1.18; the monthly ranges were least in the Rio Grande valley and in southern California, San Luis Obispo, California, reporting 0.21, the lowest for the month.

AREAS OF HIGH BAROMETER.

I.—At 7 a. m. of the 2d the weather charts exhibited an area of comparatively high barometer, inclosed by the isobar for 30.0 (.10 above the normal), extending from the lake region to the Gulf coast. At the succeeding report the pressure in the east Gulf states had diminished slightly, but over the lake region and central Ohio valley it remained unchanged. During the next twenty-four hours this area passed to the eastward and extended along the Atlantic coast from South Carolina to Maine, over which region the pressure remained above the normal until the morning of the 4th. Light frosts occurred in the lower lake region and New England on the morning of the 3d, during the passage of this area, which, however, was not attended by a marked fall in temperature.

II.—On the morning of the 5th, when low area ii. was central to the south of the lower lake region, and low area iii. was developing in Utah, the pressure was below the normal in all districts, except on the Pacific coast and in the upper lake region. In the last-named district the pressure was but slightly above the normal, the region of greatest pressure being inclosed by the isobar for 29.9; this area passed to the southeastward during this and the succeeding day (the barometer rising slowly during its progress) and reached the middle Atlantic coast at midnight of the 6th, the pressure being from .10 to .14 above the normal at the coast stations. Generally clear weather attended the passage of this area, and the temperature fell from 10° to 20°, the minimum for the month occurring at the middle Atlantic coast stations on the morning of the 6th.

III.—The morning report of the 7th indicated the approach of this high area from the British Northwest Territory, the barometer having risen from .20 to .36 during the preceding eight hours at stations in that region. During the succeeding twenty-four hours the barometer continued to rise, and at 7 a. m. of the 8th the pressure was from .20 to .40 above the normal over Minnesota, Dakota, and Nebraska. At 3 p. m. of the 8th this high area had advanced slightly to the southward, the highest barometer, 30.37 (.37 above the normal), being reported from Saint Vincent, Minnesota, and the region of greatest pressure, inclosed by the isobar for 30.2, was almost wholly within the United States. From this date the area pursued an easterly course, reaching the lower lake region at midnight of the 9th and the Atlantic coast on the following morning. At 3 p. m. of the 10th the highest barometer (30.25, or .30 above the normal) was observed at Washington City, and the pressure was from .10 to .30 above the normal in all districts east of the Mississippi river, except along the Gulf coast and in the Canadian Maritime Provinces. The pressure continued above the normal on the Atlantic coast from the 10th to the 13th; the region of greatest pressure, however, extended gradually to the northeastward, and on the afternoon of the 11th, the highest barometer, 30.26, was reported from Yarmouth, Nova Scotia, this reading being .31 above the normal, and the pressure was from .20 to .30 above the normal along the coast from North Carolina to the Maritime Provinces. The pressure remained above the normal in Nova Scotia until the morning of the 14th, when this area disappeared to the eastward, while the pressure remained above the normal in the south Atlantic and east Gulf states. The lowest temperatures of the month in the districts from Dakota to the lower lake region and southward to the lower Missouri and Ohio valleys were associated with this high area, and during its prevalence in the extreme northwest freezing weather prevailed in that region. At Moorhead, Minnesota, the temperature fell to 30° on the morning of the 8th, this being the lowest temperature observed, and frosts occurred in all districts from the Missouri valley to New England, and as far southward as the central portions of Illinois, Indiana, Ohio, and Pennsylvania.

IV.—On the afternoon of the 14th this area was approaching from the region north of Montana, where the pressure was about .10 above the normal. During the next twenty-four hours it moved slowly southeastward, the pressure remaining unchanged, and was central on the afternoon of the 15th over the upper Missouri valley and northern slope, the barometer having risen from .30 to .40 at the centre. The high area continued its southeasterly movement and by morning of the 19th it extended over the lower lake region, Ohio valley, and Tennessee and along the Atlantic coast from Maine to the Carolinas, the pressure being from .20 to .29 above the normal in these districts. During the 19th the area moved slowly eastward and by midnight extended along the Atlantic coast from the Maritime Provinces to the south Atlantic states, where it remained nearly stationary during the next twenty-four hours; it disappeared to the eastward during the 21st.

V.—The afternoon report of the 20th showed an extensive high area covering the Pacific coast and Rocky mountain districts, the pressure being from .10 to .25 above the normal. At the succeeding report this area still overspread the districts above named, but the region of greatest pressure was shown to to the north of Montana, and at stations in Montana and Dakota, the barometric readings were from .24 to .37 above the normal. On the afternoon of the 21st the area was inclosed by the isobar for 30.3 and covered the northern portions of Minnesota and Dakota and a part of Manitoba, the pressure being .40 above the normal. This area moved slowly to the southeastward and did not reach the Atlantic coast until the 24th. The pressure continued above the normal on the middle and south Atlantic coasts from the 24th to the 27th, and this area did not entirely disappear from the Maritime Provinces until the close of the month. Frosts occurred in the extreme northwest, upper Mississippi and Missouri valleys on the 22d and in the lake region on the 22d and 23d.

VI.—This area was central over the north Pacific coast region on the morning of the 27th, the pressure at that time being above the normal in all parts of the United States, except in the extreme northwest and upper lake region. The morning report of the 28th showed the region of greatest pressure to be over Manitoba and the extreme northwest, the highest barometer, 30.3, being reported from Minnedosa and Saint Vincent; at this report the pressure was from .20 to .40 above the normal from Colorado and Kansas northward to British America. This area moved slightly to the southeastward during the 28th, and on the 29th and 30th remained nearly stationary over the upper lake region, upper Mississippi and Missouri valleys, where it was central at midnight of the 30th, with the barometer from .20 to .25 above the normal. Light frosts were reported in the upper lake region on the 29th.

AREAS OF LOW BAROMETER.

During the month seven areas of low barometer have been sufficiently defined to permit the approximate tracing of the paths of their centres. Number i. is a continuation of the storm described as low area vii. of the May REVIEW; numbers iii. and iv. developed in the middle plateau region; numbers ii. and v. were first located on the middle Rocky mountain slope; numbers vi. and vii. were first observed in the extreme northwest and upper lake region, respectively. None of these depressions pursued abnormal paths, but moved to the eastward or northeastward and disappeared beyond the range of the stations of observation.

The following table gives the latitude and longitude in which each area was first and last observed, and the average hourly velocity:

Areas of low barometer.	First observed.		Last observed.		Average velocity in miles per hour.
	Lat. N.	Long. W.	Lat. N.	Long W.	
	° ′	° ′	° ′	° ′	
No. I	48 00	73 00	45 00	61 30	17.7
II	40 00	102 00	40 30	74 00	28.6
III	41 00	112 00	48 00	58 30	34.4
IV	42 00	113 00	47 30	61 30	22.7
V	38 00	104 30	50 00	63 00	33.3
VI	47 00	96 00	49 00	62 30	29.5
VII	46 00	87 00	43 00	69 00	19.2
Mean hourly velocity					26.5

I.—At the midnight report of May 31st this depression, which has been described in the May REVIEW as number vii., was central in the Saint Lawrence valley to the north of Montreal, Quebec. At the succeeding report the centre of the disturbance had changed but slightly, it being apparently on about the same meridian, though a little south of its position at the midnight report. The barometer at Montreal read 29.51 (.42 below the normal), having fallen slightly since the preceding observation. In New England and the Maritime Provinces cloudy and rainy weather with brisk to high easterly winds prevailed, and clearing weather with light to fresh westerly winds prevailed in the lower lake region. At the afternoon report of the 1st the centre of disturbance was near Yar-

mouth, Nova Scotia, where the barometer had fallen .30 during the preceding twenty-four hours; by midnight it had moved slightly to the eastward and at that report was near Sidney, with the barometer at 29.47, .48 below the normal and .47 lower than at the observation of same hour on the preceding day. On the morning of the 2d the centre of disturbance had changed its position but slightly, and cloudy and rainy weather continued in New England and the Maritime Provinces. At Sidney, Nova Scotia, 1.72 inches of rain fell between midnight of the 1st and 7 a. m. of the 2d. This disturbance, moving very slowly eastward, continued central over Nova Scotia during the 2d, with the barometer rising slightly at the centre, and was last located at the midnight report of that date, its centre having remained in nearly the same position for twenty-four hours. A further description of this storm will be found under "North Atlantic Storms" as number 2.

II.—During the 1st, 2d, and 3d the barometer was below the normal over nearly all districts west of the Mississippi river. At the afternoon report of the last-named date the isobar for 29.7, indicating least pressure, inclosed eastern Colorado and the western portions of Kansas and Nebraska, the barometer being about .10 below the normal. At midnight of the 3d the depression was central near Des Moines, Iowa, where the barometer had fallen .20 during the preceding eight hours, the pressure being about .20 below the normal. The depression continued its easterly movement, and at 3 p. m. of the 4th was central near Chicago, Illinois, where the barometer had fallen .27 during the preceding twenty-four hours. Cloudy and threatening weather prevailed in the lake region and extreme northwest, and light rains fell in the last-named district during the eight hours preceding this report. At midnight the depression, having increased in energy, was central near Toledo, Ohio, the barometer at that station reading 29.6 (the lowest yet observed during the prevalence of the disturbance), .33 below the normal and a fall of .25 in the preceding twenty-four hours. At this report cloudy and rainy weather prevailed in the Ohio valley and New England, nearly three inches of rain having fallen at Indianapolis, Indiana, on the 4th. At 7 a. m. of the 5th the centre of disturbance was near Oswego, New York, the barometer at that station reading 29.5 (.41 below the normal), a fall of .36 in twenty-four hours. After this report the storm changed its course to the southeastward and was central over New Jersey during the afternoon, the barometer falling at the centre until reaching the coast line. The depression disappeared off the coast during the night of the 5–6th, the barometer having risen from .30 to .37 at the middle Atlantic coast stations during the eight hours ending at 11 p. m. of the 5th. Cautionary signals were displayed in advance of this storm at ports on the lakes and Atlantic coast, and were generally justified. This storm is further described as number 3 under "North Atlantic Storms."

IH.—When the depression just described as number ii. was central in the lower lake region, a well-defined low area covered the central Rocky mountain region, the pressure being .20 lower at the centre than that observed at the centre of number ii. when the latter was first located in Kansas, Nebraska, and Colorado on the afternoon of the 3d. On the morning of the 5th the pressure was below the normal in all parts of the United States, except in California and the extreme northwest, where it was slightly above; at the centre of low area iii. it was .30 below the normal. At the succeeding report the depression was central in southeastern Wyoming, the barometer at Cheyenne having fallen to 29.24 (.54 below the normal), which is the lowest reading observed during the month of June at that station since its establishment, fourteen years ago. At this report (3 p. m.) the depression was in the form of an ellipse, extending from southern Montana to northern Colorado. At 11 p. m. the centre of disturbance had moved into southern Dakota, and at the morning report of the 6th it was shown near Bismarck, Dakota, where the barometer read 29.15 (.71 below the normal), a fall of .66 during the preceding twenty-four hours. The observer at Fort Bennett, Dakota, reports the following: "At 11 p. m. on the 5th the barometer read 29.16, which is the lowest observed at this station since its establishment, with one exception, viz.; May 18, 1883, when it read .01 lower." During the 6th the disturbance remained central in the extreme northwest, but changed its course to the eastward during the afternoon. The observer at Bismarck, Dakota, reports the following: "Very heavy rains fell during the 6th, the total precipitation aggregating 3.23 inches, which is the largest daily amount recorded at this station since its establishment. A northeasterly gale set in at 11.05 p. m., and continued until 8.25 a. m. on the 7th; the wind attained a maximum velocity of 56 miles per hour." At 11 p. m. on the 6th the centre of depression was near Moorhead, Minnesota; thence it moved rapidly eastward and, by morning of the 7th, was central over northern Lake Huron. At this report a trough of low barometer, inclosed by the isobar for 29.7, extended from the lake region and extreme northwest southwestward to the Mexican boundary, and the barometer was below the normal in all parts of the United States, except along the Atlantic and Pacific coasts. At 3 p. m. when the centre of depression was to the north of Lake Ontario near Rockliffe, where the barometer read 29.54, two secondary depressions were observed in the trough of the low barometer above referred to, one being central near Dubuque, Iowa, and the other in eastern Colorado. These secondary depressions were well-defined at the succeeding report (11 p. m.), but the barometer had risen .10, and, by morning of the 8th, when the centre of the principal disturbance was over the Gulf of Saint Lawrence, they had disappeared under the influence of an area of high barometer approaching from the northwest. This disturbance disappeared to the eastward of New Brunswick as a well-defined low area during the 9th. Cautionary signals were displayed in advance of this storm at the lake ports and on the Atlantic coast from Wilmington, North Carolina, northward, and were generally justified. In the Ohio valley and at certain stations in the lake region and upper Mississippi valley, the maximum temperatures for the month occurred during the prevalence of this low area.

IV.—This low area, shown on chart i. as first central in Utah, at 11 p. m. of the 9th, probably approached from the north Pacific coast, where, during the preceding twenty-four hours the barometer was below the normal. At the midnight report of the 9th the barometer at Salt Lake City, Utah, read 29.51 (.25 below the normal), having fallen .17 during the preceding eight hours. This depression remained central in Utah, Colorado, and Nebraska from the 11 p. m. observation of the 9th until the morning of the 12th. At 3 p. m. of the 12th it was central in Dakota, and thence moved east-northeastward over the lake region and Saint Lawrence valley and disappeared over the Gulf of Saint Lawrence on the 15th; it is further described as number 5, under "North Atlantic Storms." During the passage of this depression over the lake region, the barometer was from .20 to .40 below the normal, and cloudy and rainy weather prevailed in all districts east of the Mississippi river, except on the south Atlantic coast. Signals were ordered for this storm at lake stations and on the Atlantic coast from Cape May, New Jersey, northward; they were generally justified. At Alpena, Michigan, Rochester and Oswego, New York, and the summit of Mount Washington, New Hampshire, the maximum temperature for the month occurred during the prevalence of this low area.

V.—The position of the centre of this depression became well-defined in Colorado, at the midnight report of the 13th; the barometer at West Las Animas at that time reading 29.56, or .20 below the normal. It remained central over the eastern slope during the two succeeding reports, and at 11 p. m. of the 14th was shown near Omaha, Nebraska, the barometer at that station reading 29.59, a fall of .24 in twenty-four hours. Cloudy and threatening weather prevailed in the lower Ohio valley and upper lake region, and rain fell in the extreme northwest, upper Mississippi, and Missouri valleys during the eight hours ending at 11 p. m. on the 14th, the rainfall for eight hours at Moorhead, Minnesota, amounting to 2.45 inches. The

morning report of the 15th showed the centre of disturbance over Lake Superior, the barometer at Duluth, Minnesota, reading 29.57, or .37 below the normal, and cloudy and rainy weather now prevailed in the upper Mississippi and Missouri valleys, the lake region, and Ohio valley. At the succeeding report the centre of disturbance had changed but slightly, remaining over Lake Superior, and the same weather conditions prevailed in the districts before named, except in the Missouri valley, where the weather had cleared. From 3 p. m. of the 15th to 7 a. m. of the 16th the centre of depression was transferred from Lake Superior to the Gulf of Saint Lawrence, where it remained nearly stationary until the afternoon of the 17th, when it disappeared in advance of a high area then approaching from the westward. Signals displayed for this storm were justified on Lakes Michigan and Erie, but on Lakes Huron and Ontario the winds did not reach a velocity to justify the display. Signals were also ordered on the Atlantic coast from Cape May northward, but, in most instances, they were not justified. The highest temperatures recorded during the month along the Atlantic coast north of Virginia, occurred on the 15th and 16th.

VI.—This disturbance was first observed as a well-defined low area of slight energy on the afternoon of the 20th, central near Moorhead, Minnesota, where the barometer at the 3 p. m. observation read 29.69, or .18 below the normal. Since the afternoon of the 18th the barometer had been slightly below the normal in the extreme northwest, while it was above the normal in all other districts and cloudy weather with light rains prevailed in the upper Mississippi and Missouri valleys on the 19th and 20th. At the 2 p. m. report of the 20th the depression extended to the southwestward and southeastward, and the chart for the midnight observation of the 20th showed a depression, inclosed by the isobar for 29.8, central in the Missouri valley, while the principal depression was moving slowly into the lake region, and at this report was central over Lake Superior. On the morning of the 21st the depression was central near Escanaba, Michigan, where the barometer read 29.70, or .24 below the normal. The subsidiary disturbance, before referred to, had reached central Illinois, having caused during its passage very heavy rains in the lower Missouri and central Mississippi valleys. During the succeeding sixteen hours both depressions united and at midnight the centre was shown near Rockliffe, Ontario, the barometer ranging from .20 to .30 below the normal from the lower Saint Lawrence, to the upper Ohio valley. Very heavy rains and high winds to gales occurred at the lower lake stations during the passage of the depression; the following rainfalls were reported at the 11 p. m. observation of the 21st: Sandusky, Ohio, 1.50 inches; Cleveland, Ohio, 2.12 inches; Erie, Pennsylvania, 2.98 inches; Buffalo, New York, 1.35 inches. On the morning of the 22d, the centre of depression was near Montreal, the barometer at that station reading 29.36 (.57 below the normal), or a fall of .54 in twenty-four hours, and during the preceding eight hours very heavy rains and high winds to gales had prevailed at stations on Lake Ontario. During the next sixteen hours the storm passed down the Saint Lawrence valley and at 11 p. m. was central over the Gulf of Saint Lawrence, with diminished energy, the barometer having risen .20 at the centre of the depression in sixteen hours. Signals were displayed in advance of this storm on the lakes and on the Atlantic coast from Wilmington, North Carolina, northward, and were justified, except at stations on the coast of Maine.

VII.—At the 11 p. m. report of the 27th this disturbance was central in northern Michigan, and cloudy weather with light rains prevailed from the extreme northwest to the Atlantic coast. On the morning of the 28th the centre of disturbance was near Saugeen, Ontario, the pressure remaining unchanged, and threatening and rainy weather continued in the lake region and on the Atlantic coast. The rainfall at Baltimore, Maryland, during the eight hours ending at 7 a. m. was 4.18 inches. The centre of this depression moved to the eastward during the next twenty-four hours and was central near Burlington, Vermont, on the morning of the 29th; its course then changed to the southeast, and the depression passed off the New England coast on the morning of the 30th. The closing reports of the month showed the disturbance to be slowly moving towards the Bay of Fundy with the pressure decreasing at the centre, and attended by high winds to moderate gales from east to southeast over the Maritime Provinces. Signals were ordered for this storm along the Atlantic coast from Cape May, New Jersey, to Portland, Maine, and were justified at all stations.

NORTH ATLANTIC STORMS DURING JUNE, 1885.

[*Pressure expressed in inches and in millimetres; wind-force by scale of* 0-10.]

The paths of the depressions that have appeared over the north Atlantic ocean during the month have been determined, approximately, from international simultaneous observations furnished by captains of ocean steamships and sailing vessels; abstracts of ship's logs and other data collected by the Signal Service agencies at the ports of New York, Boston, and Philadelphia; reports furnished through the co-operation of the "New York Herald Weather Service," ships' logs furnished by the proprietors of the "New York Maritime Register," and from other miscellaneous data received at this office up to July 21st, 1885.

Six depressions have appeared within the area covered by the observations; of this number, all but one (number 1) were apparently depressions which originated in, and traversed, the North American continent. The exception referred to was a depression which occupied the ocean near the fortieth parallel and between W. 35° and 55° during the 2d and 3d, after which date it probably merged in one of the above-mentioned depressions.

Only two of the depressions charted appear to have approached the European coast; the eastward movement of numbers 3 and 4 was checked by an extensive area of high barometer which occupied the ocean to the eastward of 30° W. on the 9th and which, spreading westward, caused the depressions to disappear on the 10th; number 6, after crossing northern Newfoundland, disappeared beyond the range of observation on the 25th. The general direction of movement of the depressions during June, 1885, was east-northeasterly. The most severe storm of the month was that traced as number 3; during the 6th and 7th the barometer fell to 29.0 (736.6), which is unusually low for storms of the summer months, and violent gales prevailed until the 9th; along the coast of Newfoundland this storm was especially disastrous. It is estimated that more than fifty vessels were totally wrecked on that coast, while a large number were driven ashore and seriously damaged; number 2 was also severe during the first three days of the month, having caused considerable damage to shipping and other property along the coast of Cape Breton island.

The weather over the north Atlantic during June, 1885, was, with the exception of the periods above referred to, generally moderate and fine; days of cloudy weather, with light to heavy rains, were frequently reported, but were generally followed by clear and pleasant weather.

During the first decade of the month the atmospheric pressure remained relatively low over the region between N. 40° and 50°, but at the beginning of the second decade an area of high pressures occupied this region and continued generally until the close of the month.

The following are descriptions of the depressions charted:

1.—When the centre of the depression described as i., under "Areas of low barometer" was over Cape Breton island, a decrease of pressure occurred near N. 40°, W. 50°, and the circulation of the winds indicated that another disturbance had developed. The pressure over the above-mentioned region ranged from 29.45 (748.0) to 29.6 (757.8), and strong breezes to moderate gales from w. and nw. occurred to the westward of the fifty-fifth meridian, while moderate s. and e. winds prevailed to the eastward of W. 50°. By the 3d this disturbance